

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A tape library storage system, comprising:
at least one tape drive tray having a tape drive, power supply, fan, fault indicator light, and temperature sensor mounted therein;
an intelligence module stationary within the at least one tape drive tray, said intelligence module having electronics to control and monitor tape drive tray functions in the storage library, including electronics to control and monitor the tape drive, power supply, fan, temperature sensor, and fault indicator light;
a main library controller interfaced to the intelligence module, wherein the intelligence module sends tape drive tray function data to the main library controller for use by the main library controller in commanding operations of the at least one tape drive tray, wherein, in response to receipt of the tape drive tray function data, the main library controller transmits a command to the intelligence module that the intelligence module decodes for use in controlling the at least one tape drive tray, including controlling the tape drive, power supply, fan, and fault indicator light.
2. (Original) The system in claim 1, wherein the intelligence module interface includes a tape transport interface port.
3. (Original) The system in claim 1, wherein the tape drive tray function data is sent via a wireless connection.
4. (Original) The system in claim 3, wherein the wireless connection includes at least one of a radio frequency or infrared transmission.
5. (Previously Presented) The system in claim 1, wherein the at least one tape drive tray includes a loopback configured to loop the command back to the main library

controller, wherein the command loops back to the main library controller for use in verifying integrity of communication lines used by the main library controller to communicate with the at least one tape drive.

6. (Previously Presented) The system in claim 1, wherein positive or negative acknowledgment of the commands is sent back to the main library controller after the commands are received by the intelligence module.

7. (Original) The system in claim 5, wherein the main library controller transmits the command to the intelligence module in a serial format.

8. (Original) The system in claim 7, wherein the intelligence module decodes the serially formatted command into discrete signals corresponding to a specific tape drive tray interface.

9. (Canceled)

10. (Original) The system in claim 1, wherein the intelligence module sends tape drive tray function information to the main library controller in a serial format.

11. (Original) The system in claim 1, wherein the tape drive tray function data is gathered by periodically sampling status signals from the tape drive tray.

12-24. (Canceled)

25. (Previously Presented) A method of controlling devices located within a tape drive tray, comprising:

transmitting control data from a main controller to the tape drive tray in a serial format;
receiving the control data at the tape drive tray, wherein a stationary intelligence module within the tape drive tray decodes the control data;

using the stationary intelligence module to drive discrete signal lines to a state as specified in the control data;

periodically, with a loopback feature included within the tape drive tray, looping at least a portion of the control data back to the main library controller; and

the main library controller to verifying integrity of at least one communication line used by the main library controller to communicate with the at least one tape drive based on the looped backed portion of the control data.